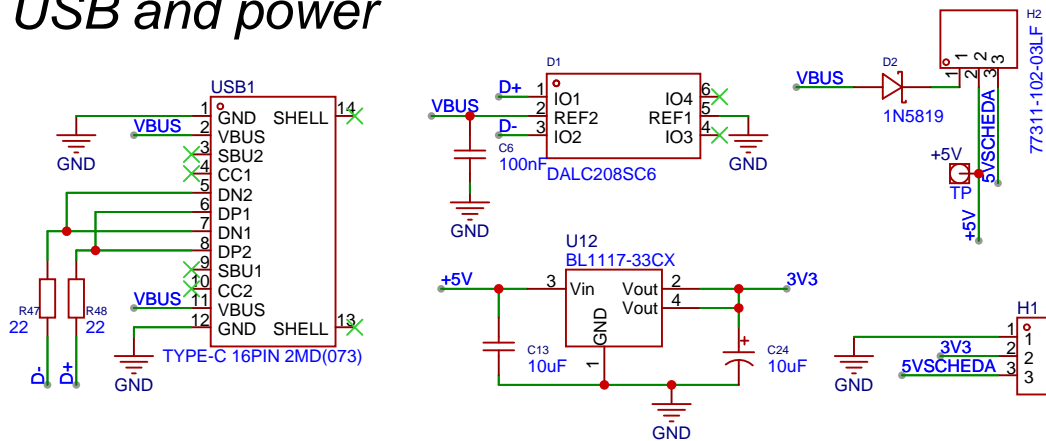
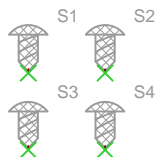
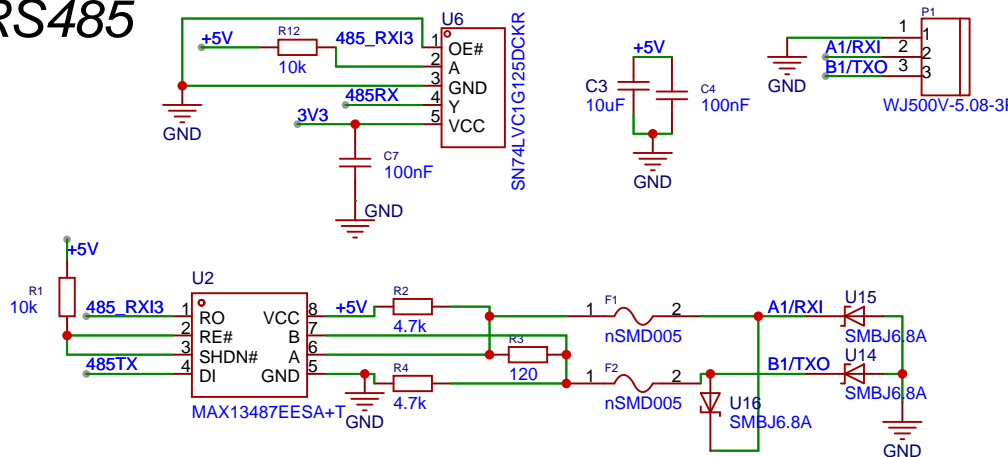


USB and power




RS485



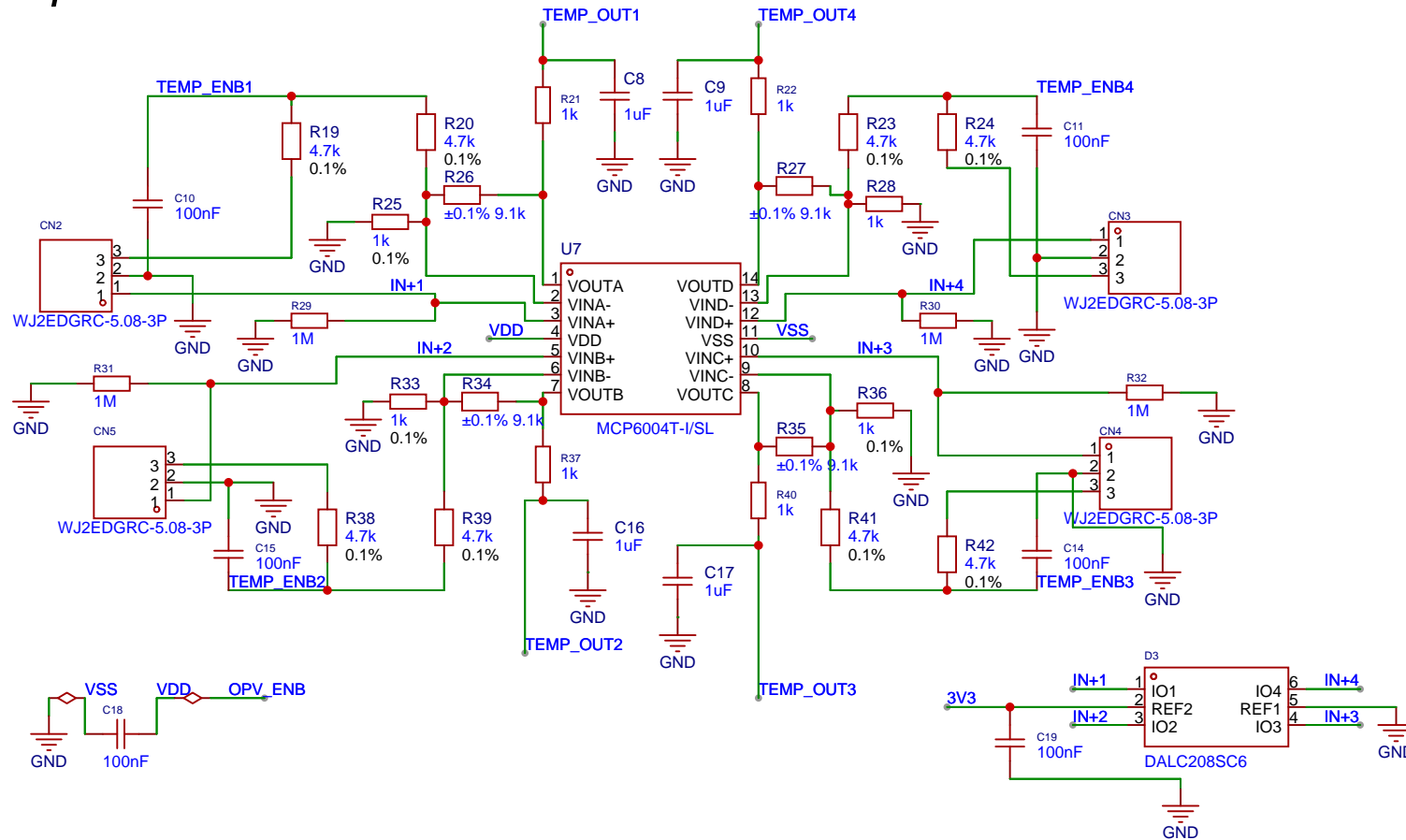
Schematic	Temperature Board V1.1		Update Date	2025-05-14
			Create Date	2025-04-24
Page	Power and RS485		Part Number	JLCPCB-002
Drawn	carletz	Differential Solar Controller		
Reviewed	carletz			
		VER	SIZE	PAGE 1 OF 3
EasyEDA		V1.1	A4	carletz


Microcontroller

The schematic diagram illustrates the electrical connections for an ATmega32U4-MU microcontroller (U9). The microcontroller is powered by a 3V3 regulator (TP) and a 5V regulator (TP). The 5V regulator is connected to the +5V pin of U9. The 3V3 regulator is connected to the 3V3 pin of U9. The microcontroller has several pins connected to ground (GND) and power (3V3, 5V). The microcontroller is connected to a 16MHz crystal (X1) with 22pF capacitors (U10, U11). The microcontroller is connected to a TS-1088-AR02016 reset button (RESET) through a 1k resistor (R5). The microcontroller is connected to a 485RX/485TX module (H4) through a 1k resistor (R5). The microcontroller is connected to an IIC module (H3) through a 4.7k resistor (R7). The microcontroller is connected to a WJ2EDGRQ-5.08-3P module (CN1) through a 4.7k resistor (R7). The microcontroller is connected to a 3V3 regulator (TP) and a 5V regulator (TP). The microcontroller is connected to a 16MHz crystal (X1) with 22pF capacitors (U10, U11). The microcontroller is connected to a TS-1088-AR02016 reset button (RESET) through a 1k resistor (R5). The microcontroller is connected to a 485RX/485TX module (H4) through a 1k resistor (R5). The microcontroller is connected to an IIC module (H3) through a 4.7k resistor (R7). The microcontroller is connected to a WJ2EDGRQ-5.08-3P module (CN1) through a 4.7k resistor (R7).

Schematic	Temperature Board V1.1			Update Date	2025-05-14
				Create Date	2025-04-24
Page	Microcontroller			Part Number	JLPCB-002
Drawn	carletz	Differential Solar Controller			
Reviewed	carletz				
		VER	SIZE	PAGE	2 OF 3
		V1.1	A4	carletz	

Amplifier PT1000



Schematic	Temperature Board V1.1			Update Date	2025-05-14	
				Create Date	2025-04-24	
Page	Amplifier PT1000			Part Number	JLCPCB-002	
Drawn	carletz	Differential Solar Controller				
Reviewed	carletz					
		VER	SIZE	PAGE	3	OF 3
		V1.1	A4	carletz		